**Version:** 3 .0
**Effective Date:** 13/02/2007
**Previous Date:** 19/07/2006

# SAFETY DATA SHEET

# SPECTRUS NX1101

## 1 IDENTIFICATION OF PREPARATION AND OF COMPANY

**1.1 Identification of the substance or preparation**

Product : SPECTRUS NX1101

**1.2 Use of substance/preparation**

Biocide

**1.3 Company/undertaking identification**

GE Water & Process Technologies France SNC
Allée du 1er Mai
Parc d'Activités de Paris-Est
F-77183 Croissy Beaubourg
Tel.: 01 60 37 59 60

**1.4 Emergency telephone**

- GE Betz (24h/24h) : 01 60 37 00 00

- Official advisory body
ORFILA : 01 45 42 59 59

## 2 COMPOSITION / INFORMATION ON INGREDIENTS

**Chemical description**

Blend of biocidal agents

| Hazardous component(s) | EINECS/ELINCS # | CAS # | Conc. |
|---|---|---|---|
| Alkyl dimethyl benzyl ammonium chloride<br>C, N, R21/22-34-50 | 270-325-2 | 68424-85-1 | 10 - 25 % |
| 2-Bromo-2-nitropropane-1,3-diol (Bronopol)<br>Xn, N, R21/22-37/38-41-50 | 200-143-0 | 52-51-7 | 5 - 10 % |
| Ethanol<br>F, R11 | 200-578-6 | 64-17-5 | 1 - 5 % |

**Remarks**

The classification of the above substance(s) is given, including the symbol letters and R phrases which are assigned in accorda with their physicochemical, health and environmental hazards. Please refer to section 16 (Relevant R phrases, used in sections and 3 of this SDS), where the full text of each relevant R phrase is listed.

## 3 HAZARDS IDENTIFICATION

**Important hazards**

| | |
|---|---|
| - Health/physical hazard | Causes burns.<br>Harmful if swallowed. |
| - Environmental hazards | Very toxic to aquatic organisms. |

## 4 FIRST AID MEASURES

**Skin contact**
Immediately remove all contaminated clothing.
Wash immediately with plenty of water.
Seek medical attention.

**Eye contact**
Flush immediately with plenty of running water.
Keep eyelids apart.
Continue rinsing for at least 10 minutes.
Seek medical attention.

**Inhalation**
Remove patient to fresh air, allow to rest and keep warm.
Seek medical attention.

**Ingestion**
First rinse mouth with water.
Immediately give 1-2 glasses of water, if victim is fully conscious.
Do NOT induce vomiting!
Seek medical attention.

## 5 FIRE-FIGHTING MEASURES

**Extinguishing Media**

- Suitable: Carbon dioxide, dry chemicals, foam, water spray (fog).

**Special protective equipment for fire fighters**
Self contained breathing apparatus. (CEN : EN 137)
Protective clothing (CEN : EN 469)
Protective gloves (CEN : EN 659)
Helmet (CEN : EN 443)

**Special exposure hazards**
Hydrogen bromide, bromine gas, hydrogen chloride, chlorine gas, oxides of carbon and nitrogen evolved in fire.
Ammonia evolved in fire.

## 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions**
Wear protective clothing, gloves and safety goggles.
Please refer also to section no. 8 'Exposure controls' for further information.

**Environmental precautions**
Prevent from entering sewers or the immediate environment.
Do not empty into drains, dispose of this material and its container to hazardous or special waste collection point.

**Methods for Cleaning Up**

- on soil: Isolate spill by diking.
Absorb onto inert material and dispose of according to Special Waste Regulations.

## 7 HANDLING AND STORAGE

**7.1 Handling**
Should always be handled in a closed system.
Acidic.
Do not mix with alkaline material.

**7.2 Storage**
Store containers closed when not in use.
Protect from freezing.

**Maximum storage stability (days)** 270

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure limit values**

| | |
|---|---|
| - VME/VLE (INRS) | Ethanol : 1000 ppm 1900 mg/m3 (VME) - 5000 ppm 9500 mg/m3 (VLE) |

**Exposure controls**

| | |
|---|---|
| - Recommended engineering controls | Adequate ventilation to maintain air contaminants below exposure limits.<br>Arrange for eye wash possibility. |
| - Respiratory protection | In case of insufficient ventilation, use a breathing mask with filter type: A2-P2<br>CEN : EN 140; EN 141 |
| - Hand protection | Gauntlet type neoprene gloves (Protection against unintentional short-term contact)<br>CEN : EN 374-1/2/3; EN 420 |
| - Eye protection | Splash proof chemical goggles.<br>Face shield.<br>CEN : EN 166 |
| - Skin protection | Chemical resistant apron.<br>CEN : EN 340; EN 368; EN 369; EN 467 |
| - Environmental exposure controls | Prevent from entering in public sewers or the immediate environment.<br>Do not empty into drains, dispose of this material and its container to hazardous or special waste collection point. |

## 9 PHYSICAL AND CHEMICAL PROPERTIES

**9.1 General information**

| | |
|---|---|
| Appearance | Liquid |
| Colour | Colourless to yellow |
| Odour | Slight |

**9.2 Important health, safety and environmental info**

| | |
|---|---|
| pH (concentrated product) | 1,9 |
| pH in aqueous solution | 3,2 (5%) |
| Flash point (Pensky/Martens) (°C) | >100 |
| Density at 20°C (kg/m3) | 1021 |
| Solubility in water (% weight) | Completely soluble |
| Partition coefficient (Pow) | (Refers to active component) ( 2-Bromo-2-nitropropane-1,3-diol (Bronopol) ): 0,18 |
| Viscosity at 20°C (mPas) | 5 |
| Relative vapour density (air=1) | <1 |
| Evaporation rate (ether=1) | <1 |

**9.3 Other information**

| | |
|---|---|
| Melting point, (°C) | -3 |
| Pour point, (°C) | -1 |

## 10 STABILITY AND REACTIVITY

| | |
|---|---|
| **10.1 Conditions to avoid** | Protect from freezing. |
| **10.2 Materials to avoid** | Avoid contact with strong oxidisers. |

| | |
|---|---|
| **10.3 Hazardous decomposition products** | Hydrogen bromide, bromine gas, hydrogen chloride, chlorine gas, oxides of carbon and nitrogen evolved in fire.<br>Ammonia evolved in fire. |

## 11 TOXICOLOGICAL INFORMATION

**Mammalian Test Data**

| | |
|---|---|
| - Oral LD50, rat (mg/kg) | 1260 |
| - Dermal LD50, rabbit (mg/kg) | > 2000 |

**Exposure hazard**

| | |
|---|---|
| - Inhalation | Dusts, vapours, mists or aerosols cause irritation to upper respiratory tract.<br>Prolonged exposure may cause dizziness and headache. |
| - Skin contact | Causes burns. |
| - Eye contact | Causes burns. |
| - Ingestion | Causes burns in mouth, throat and/or stomach.<br>Causes nausea, dizziness and/or vomiting. |

## 12 ECOLOGICAL INFORMATION

**Ecotoxicity**

| | |
|---|---|
| - Rainbow Trout (mg/l) | LC50 : 0,93 (Refers to active component: Alkyl dimethyl benzyl ammonium chloride )<br>96 hour Acute Toxicity<br><br>LC50 : 41 (Refers to active component: 2-Bromo-2-nitropropane-1,3-diol (Bronopol) )<br>96 hour Acute Toxicity |
| - Fathead minnow (mg/l) | LC50 : 5,3<br>NOEL : 2,7<br>96 hour static renewal bioassay |
| - Menidia beryllina (mg/l) | LC50 : 6,8<br>NOEL : 2,5<br>96 hour static renewal bioassay |
| - Daphnia Magna (mg/l) | EC50 : 0,0058 (Refers to active component: Alkyl dimethyl benzyl ammonium chloride )<br>48 hour Acute Toxicity<br><br>EC50 : 1,4 (Refers to active component: 2-Bromo-2-nitropropane-1,3-diol (Bronopol) )<br>48 hour Acute Toxicity<br><br>LC50 : 0,25<br>NOEL : 0,2<br>48 hour static renewal bioassay |
| - Mysid shrimp (mg/l) | LC50 : 1,2<br>NOEL : 0,16<br>96 hour static renewal bioassay |
| - Algae Inhibition (mg/l) | LC50 : 0,02 (72h, Scenedesmus Sp.) (Refers to active component: 2-Bromo-2-nitropropane-1,3-diol (Bronopol) ) |
| - Active sludge inhibition (mg/l) | EC50 : 10 (Refers to active component: Alkyl dimethyl benzyl ammonium chloride )<br>OECD 209 |

**Mobility**

- Migration in the environment: Migration depends on the soil. Bronopol migrates easily in acid soil and moderately in basic soil.

**Persistence and degradability**

- COD (mgO2/g): 389 (calculated data)
- BOD 5 (mgO2/g): 8 (calculated data)
- BOD 28 (mgO2/g): 8 (calculated data)
- Closed Bottle Test (% Degradation in 28 days): 2 (calculated data)
- Zahn-Wellens Test (% Degradation in 28 days): 0 (calculated data)
- TOC (mg C/g): 84 (calculated data)
- Biodegradation (%): 84 % degradation in 28 days (Refers to active component: Alkyl dimethyl benzyl ammonium chloride )
  CO2 Evolution (Modified Sturm Test) (OECD 301B)

  Biodegrades slowly.
  DT50: 45 days
  (Refers to active component) 2-Bromo-2-nitropropane-1,3-diol (Bronopol)
- Hydrolysis (T ½): (Refers to active component) ( 2-Bromo-2-nitropropane-1,3-diol (Bronopol) ): 540 d (pH 6, 20°C)
  (Refers to active component) ( 2-Bromo-2-nitropropane-1,3-diol (Bronopol) ): 60 d (pH 8, 20°C)

**Bioaccumulative potential**

- Bioaccumulation: Not bioaccumulating
  (Refers to active component) ( Alkyl dimethyl benzyl ammonium chloride ): BCF : 79
  Not bioaccumulating
  (Refers to active component) 2-Bromo-2-nitropropane-1,3-diol (Bronopol)
- Partition coefficient (Pow): (Refers to active component) ( 2-Bromo-2-nitropropane-1,3-diol (Bronopol) ): 0,18

**Summary**

Very toxic to aquatic organisms.
The evaluation of environmental hazards is based on the concentration limits as set out in directive 1999/45/EC.

## 13 DISPOSAL CONSIDERATIONS

**Disposal of product**

According to Special Waste Regulations.

EWC ( European Waste Code ) recommendation : 16 03 05
16 Wastes not otherwise specified in the list.
16 03 Off-specification batches and unused products.
16 03 05 Organic wastes containing dangerous substances.
Depending on the origin and state of the waste, other EWC numbers may be applicable too.

**Disposal of packaging**

According to Special Waste Regulations.

EWC ( European Waste Code ) recommendation : 15 01 10
15 Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified.
15 01 Packaging (including separately collected municipal packaging waste).
15 01 10 Packaging containing residues of or contaminated by dangerous substances.
Depending on the origin and state of the waste, other EWC numbers may be applicable too.

## 14 TRANSPORT INFORMATION

| | |
|---|---|
| **Substance id.no. (SIN) (UN No.)** | 3265 |
| **Correct shipping name** | Corrosive liquid, acidic, organic, n.o.s. |
| **- Contains** | Alkyl dimethyl benzyl ammonium chloride mixture |

**Land transport**

| | |
|---|---|
| - Transport hazard label | 8<br>Corrosive |
| - RID/ADR classification | 8 |
| - Packaging group | III |

**Maritime transport**

| | |
|---|---|
| - Transport hazard label | 8<br>Corrosive |
| - IMO-IMDG class | 8 |
| - Packaging group | III |
| - EmS no. | F-A, S-B |
| - MFAG no. | See Emergency action guide.<br>The treatment recommended in this Guide is specified in the appropriate tables and more comprehensive in the appropriate sections of the Appendices. |

**Air transport**

| | |
|---|---|
| - Transport hazard label | 8<br>Corrosive |
| - ICAO/IATA classification | 8 |

| | |
|---|---|
| **Other information** | TREMCARD 80GC3-III |

## 15 REGULATORY INFORMATION

**EEC labelling information**

| | |
|---|---|
| - Symbol(s) | Corrosive:C<br>Dangerous for the environment: N |
| - Contains | Alkyl dimethyl benzyl ammonium chloride (106 g/l) |
| - R Phrase(s) | R 22 :Harmful if swallowed.<br>R 34 :Causes burns.<br>R 50 :Very toxic to aquatic organisms. |
| - S Phrase(s) | S 26 :In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.<br>S 28 :After contact with skin, wash immediately with plenty of water.<br>S 36/37/39 :Wear suitable protective clothing, gloves and eye/face protection.<br>S 45 :In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).<br>S 60 :This material and its container must be disposed of as hazardous waste.<br>S 61 :Avoid release to the environment. Refer to special instructions/Safety data sheets. |
| - EINECS number | All ingredients of this product are listed in EINECS or ELINCS, unless specifically exempted under the EEC Directive 67/548/EEC. |
| - France | Tableau des maladies professionnelles n° 84 |

## 16 OTHER INFORMATION

| | |
|---|---|
| **Nature of revision** | Correction in Section: 1,2,3,6,9,10,12,15,16 |
| **Based on EC Directive** | 1999/45/EC<br>2001/118/EC<br>2001/58/EC<br>2006/8/EC<br>1998/8/EC (Biocidal Product Directive)<br>All active ingredients have been identified/notified for the relevant Product Types according to the First Review Regulation on existing active substances (EC) No. 1896/2000<br><br>This information is based on our current knowledge and is intended to describe the product for the purpose of safety requirements only. It should not therefore be construed as garanteeing any specific property of the product. |
| **Relevant R phrases, used in sections 2 and 3 of this SDS** | R 11 : Highly flammable.<br>R 34 : Causes burns.<br>R 41 : Risk of serious damage to eyes.<br>R 50 : Very toxic to aquatic organisms.<br>R 21/22 : Harmful in contact with skin and if swallowed.<br>R 37/38 : Irritating to respiratory system and skin.<br>R 22 : Harmful if swallowed. |